[0180] In some embodiments, a user interface may be presented which recommends that the passenger adjust his/her position to better see the mirrors. For example, the passenger's seat may be in a position which is disadvantageous for mirror viewing. As another example, the passenger may be too short or too tall for good mirror viewing at a certain seat position. In some embodiments, the system may automatically adjust a seat (e.g., raise the seat, lower the seat, and so on).

[0181] In addition to the adjusting air conditioning and mirrors, the system may also adjust a steering wheel. For example, the system may adjust a steering wheel based on a height of a passenger. The height may be informed based on a height of the passenger's face or another portion of the passenger's body (e.g., arms, torso, and so on). Thus, using images and/or video of the passenger the system may automatically adjust the steering wheel.

[0182] In some embodiments, the system may use images or video of an interior of a vehicle to determine whether any animals are present. For example, the system may trigger a dog mode automatically upon identifying that a dog, or other animal, is present in the vehicle when humans have left the vehicle. In some embodiments, the system may use facial tracking or eye tracking to ensure that a driver is monitoring the road when self-driving technology is engaged.

Other Embodiments

[0183] Example embodiments may include methods, systems, and non-transitory computer storage media. An example method is implemented by a system of one or more processors, the system being included in a vehicle, and the method comprising: causing presentation, via a display of the vehicle, of a unified user interface comprising a combined view which aggregates an autonomous visualization and map information, the autonomous visualization and map information being associated with a zoom level, wherein the unified user interface is generated based on first contextual information indicative of operation of the vehicle; accessing second contextual information indicative of subsequent operation of the vehicle; and updating the unified user interface based on the second contextual information, wherein the combined view is adjusted, and wherein adjusting the combined view comprises adjusting a size of the combined view in the unified user interface or adjusting the zoom level.

[0184] The above embodiments may include one or more of the following. The autonomous visualization includes a graphical depiction of the vehicle. The autonomous visualization includes a graphical depiction of the vehicle and a graphical representation of a real-world environment in which the vehicle is located. The graphical representation of the real-world environment comprises one or graphical depictions of other vehicles which are proximate to the vehicle. The graphical representation of the real-world environment comprises graphical depictions of other vehicles and graphical representations of one or more objects which are proximate to the vehicle. An object includes a road marking, a stop sign, a signal light, a pedestrian, a trash can, or a road sign. The combined view includes a graphical representation of one or more lanes of a road on which the vehicle is located, a graphical depiction of the vehicle positioned in a particular lane of the one or more lanes, and map information comprising a graphical representation of a map associated with the road, wherein the graphical depic-

tion of the vehicle is depicted as being on the map. The combined view represents a rendered view of a real-world environment in which a render or virtual camera is positioned a threshold distance above a rear of the vehicle. The combined view represents a driving view, and wherein the graphical depiction of the vehicle is animated as driving in the particular lane. The map indicates a name of the road. The map indicates a different name of a different road proximate to the road. The embodiments further include receiving user input associated with updating the zoom level associated with the combined view; identifying a portion of the map information based on the updated zoom level; and updating the combined view, wherein the combined view includes a graphical representation of the portion of the map information. Updating the combined view comprises re-sizing the autonomous visualization. The autonomous visualization comprises a graphical depiction of the vehicle, and wherein the graphical depiction is reduced in size based on the updated zoom level. The first contextual information indicates that the vehicle is in park, and wherein the second contextual information is associated with control of vehicle functionality via the unified user interface. Control of vehicle functionality comprises control of a heating, ventilation, and air conditioning, system, or control of a music application, or control of a navigation user interface. The unified user interface includes a plurality of icons associated with respective vehicle functionality, wherein updating the unified user interface comprises: updating the unified user interface to include a menu associated with a selected icon, wherein the menu is included in a first portion of the unified user interface; and re-sizing the combined view, wherein the combined is included in a second portion which is not occluded by the menu. The first contextual information indicates that the vehicle is navigating along a route, wherein the combined view further aggregates the navigation information, and wherein the second contextual information indicates that the vehicle has moved along the route. The route is associated with a plurality of driving events indicated in the navigation information, and wherein updating the unified user interface comprises: identifying a subset of the driving events which are within a threshold distance of a location of the vehicle or within a threshold driving time of the location; determining, based on the identified subset, that the zoom level is to be adjusted. Determining that the zoom level is to be adjusted is based on one or more complexity measures associated with the subset of the driving events. Determining that the zoom level is to be adjusted is based on a number of the identified subset exceeding a threshold. A size of the autonomous visualization is adjusted based on the adjusted zoom level and wherein an area associated with the map information is increased based on the adjusted zoom level. The route is associated with a plurality of driving events indicated in the navigation information, wherein the combined view illustrates a first driving event of the plurality of driving events, and wherein the method further comprises: adjusting the zoom level, wherein the combined view illustrates a plurality of second driving events of the plurality of driving events. The route is associated with a plurality of driving events indicated in the navigation information, and wherein updating the unified user interface comprises: identifying at least one driving event which is within a threshold distance of a location of the vehicle or within a threshold driving time of the location; determining, based on the at least one